

Partition wall, timber framing

Fire resistance duration: 30 – 60 min.

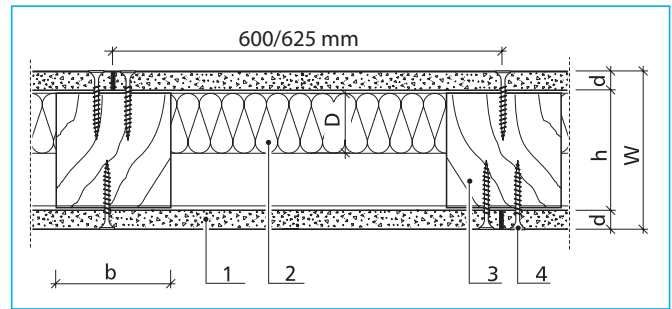
$R_{w,R} \leq 42 \text{ dB}$

Abbreviations

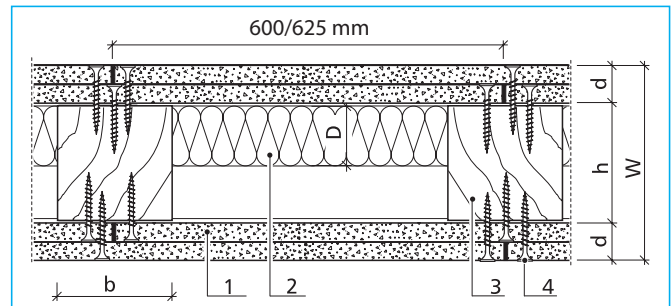
- W Wall thickness (mm)
- d Thickness of the AQUAPANEL® Cement Board Indoor panel
- D/A Thickness of insulation layer (mm)
- b/h Cross-section of the timber framing (mm/mm)
- HS Half width of panel (mm)

Description of material

- 1 AQUAPANEL® Cement Board Indoor
- 2 Insulation material
- 3 Supporting and foundation battens, softwood grade S10
- 4 AQUAPANEL® Maxi Screws, clips or wood screws
- 5 Galvanized woodscrews 8 x 100 mm with plastic pins 10 x 40 mm
- 6 Insulation strips e.g. sealing tape/partition wall kit
- 7 Glued joint with AQUAPANEL® Joint Adhesive (PU)
- 8 Woodscrews 6 x 100 mm
- 9 Permanently flexible sealant



Wooden stud frame, single-layer panelling, horizontal section



Wooden stud frame, double-layer panelling, horizontal section

Maximum wall height in m according to DIN 4103, Part 4 **

Timber framing	without fire protection requirement		with fire protection requirement	
	Installation range 1	Installation range 2	Installation range 1	Installation range 2
Timber frame min b/min h (mm/mm)				
80/60	4.10	4.10	4.10	4.10

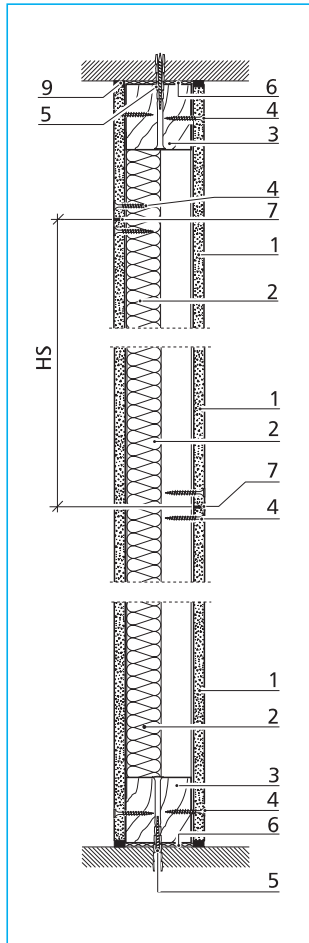
Physical properties

AQUAPANEL® Cement Board Indoor	Profile	Wall thickness (mm)	Mineral wool (A1, Melting point >1000°C)		Fire resistance class Test certificate	Sound insulation $R_{w,R}$ dB Test certificate	
			Thickness (mm)	Gross density (kg/m³)			
1 x 12.5 mm per wall side	HS 60/60	85	85	85	EI60 3032/2752	36(*)	420001590-6
2 x 12.5 mm per wall side	HS 60/60	110	40	14	-	42(*)	420001590-6

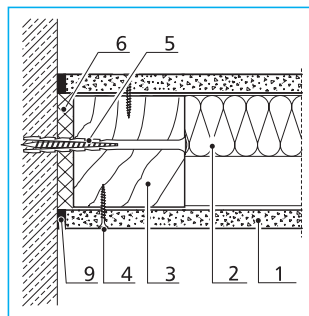
(*) Mineral wool $\geq 40\text{mm}$; $\geq 14 \text{ kg/m}^3$.

(**) Apply national building regulations.

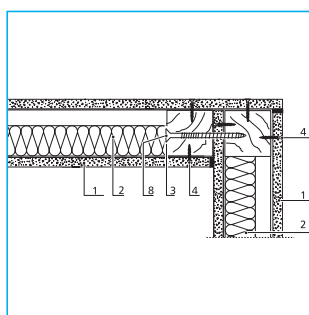
Particularly suitable for housing construction and for wooden stud structures



Vertical section



Wall connection



Corner formation

For connection to floors and ceilings and for studs, use flat, warp-free grade S10 wood with a moisture content of less than 20%.

Installing the connection timbers

The connection timbers are fastened with at least one 6 mm diameter woodscrew per metre wall length or an equivalent, approved anchoring device.

For side fastening of walls to wooden components, we recommend two 12 mm diameter woodscrews. The wall lengths must not exceed 5000 mm.

When installing the AQUAPANEL® Cement Board Indoor panels on the timber frame, follow the instructions for screwing and glueing given on page 9.

When fastening the AQUAPANEL® Cement Board panels, galvanized or rust-free clips or screws can be used as an alternative to the AQUAPANEL® Maxi Screw. For wood screws, minimum b/h measurements of 80/60 must be selected.

Clamp type:
Haubold SD 9150 CRF (Ø 2.0 mm, L = 50 mm) oder Bühnen Q 21 BAB/LQ21 BLB (Ø 1.8 mm, L = 50 mm), Minimum edge distance of 30 mm

Clamping device:
Haubold PN 9180 XII or Bühnen SQ S 55

Screwnail type:
Haubold RNC-S 28/45 RF (Ø 2.8 mm, L = 45 mm, Torx 15), Minimum edge distance of 20 mm

Nail device:
Haubold RNC 65 S/W I

Fastening distances from each other:
Board edge: 150 mm
Board centre: 75 mm

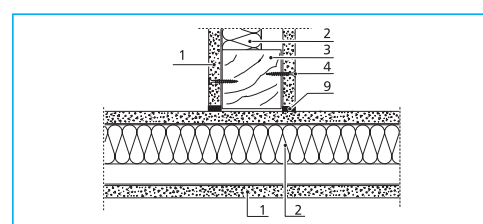
Material requirements per square metre wall

Material requirements for wooden frameworks with AQUAPANEL® Cement Board Indoor without offcut and loss.

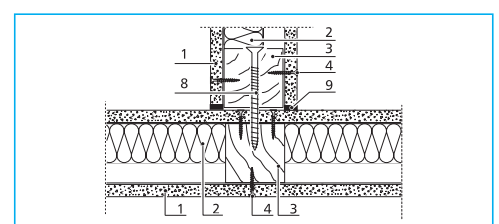
Material	Single layer	Double layer
Square timber 80/60	2.7 lfm	2.7 lfm
Sealing tape/partition wall kit	0.7 lfm	0.7 lfm
Wood screws 8 x 100 mm plus peg	1.6 pieces	1.6 pieces
AQUAPANEL® Cement Board Indoor	2 m ²	4 m ²
AQUAPANEL® Maxi Screws or clips or wood screws	30 pieces 52 pieces	60 pieces 104 pieces
AQUAPANEL® Joint Adhesive (PU)	100 ml	200 ml
AQUAPANEL® Interior Primer	approx. 100 g	approx. 100 g
Insulation material	1 m ²	1 m ²
Permanently flexible sealant		

Special notes

For all walls with wooden frameworks we recommend adhering to national regulations. Table 1, DIN 4103, part, 4, page 3, line 2 can be used to determine approved wall heights. The penetration depth of the screws in a wooden framework is 5 times the shank diameter, but not less than 24 mm. Non-load-bearing partition walls should have expansion joints at least every 7.2/7.5 metres. Building expansion joints must also be applied. The stated construction physical characteristics, static and construction properties can only be achieved when exclusive use is made of recommended products.



T connection of two partition walls, variant 1



T connection of two partition walls, variant 2